

ABSTRACT

A fluorescent lamp 1 comprises: a bulb 2 formed by heating bent-portion-formation preordination portions of a single straight-tube-shaped bulb 2a having an external tube diameter of 12 to 20 mm and a tube length of 800 to 2500 mm, forming a plurality of bent portions 2c and straight tube portions 2b adjacent to the bent portions 2c by bending processing, such that the straight portions 2b are disposed generally within the same plane by way of the bent portions 2c, forming in close proximity a pair of end portions 2d and 2d with electrodes 5 and 5 sealed in so as to form a single discharge path through the straight tube portions 2b and bent portions 2c, forming a phosphor layer 4 on the inner face of the bulb, and sealing a discharge medium including mercury; and a base 6 provided on the end portions 2d and 2d of the bulb 2; whereby thermal deterioration of the phosphor layer 4 formed at the straight tube portions 2b is reduced so deterioration of the initial light flux is suppressed, allowing lighting at higher efficiency. According to the above configuration, a fluorescent lamp which is compact and capable of light with high efficiency, and with improved light output properties, and a light fixture using this fluorescent lamp, can be provided.

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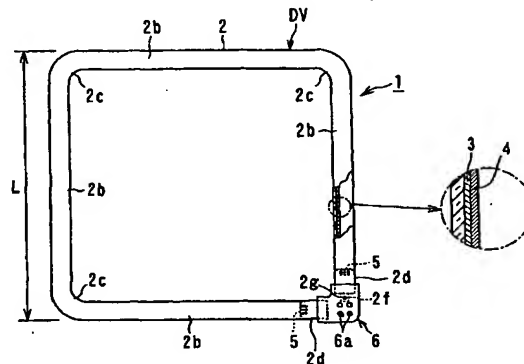
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- (26) 国際公開の言語: 日本語 (75) 発明者/出願人 (米国についてのみ): 西村 潔 (NISHIMURA, Kiyoshi) [JP/JP]; 〒140-8640 東京都品川区東品川四丁目3番1号 東芝ライテック株式会社内 Tokyo (JP). 渡邊 美保 (WATANABE, Miho) [JP/JP]; 〒140-8640 東京都品川区東品川四丁目3番1号 東芝ライテック株式会社内 Tokyo (JP). 柴原 雄右 (SHIBAHARA, Yusuke) [JP/JP]; 〒140-8640 東京都品川区東品川四丁目3番1号 東芝ライテック株式会社内 Tokyo (JP). 大谷 清 (OOTANI, Kiyoshi) [JP/JP]; 〒140-8640 東京都品川区東品川四丁目3番1号 東芝ライテック株式会社内 Tokyo (JP). 山田
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(54) Title: FLUORESCENT LAMP AND ITS MANUFACTURING METHOD, AND ILLUMINATING APPARATUS

(54) 発明の名称: 蛍光ランプおよびその製造方法、並びに照明器具



(57) Abstract: A fluorescent lamp (1) comprises a bulb (2) and bases (6). The bulb (2) is composed of bent portions (2c) and straight portions (2b) adjoining the bent portions (2c). The portions (2c, 2b) are formed by heating and bending bent-portion-forming portions of a straight bulb (2a) having a bulb outside diameter of 12 to 20 mm and a bulb length of 800 to 2500 mm. The straight portions (2b) lie in the same plane, with the bent portions (2c) interposed between the straight portions (2d). The bulb (2) has a pair of ends (2d) near each other where electrodes (5, 5) are so sealingly provided that a discharge path is formed from the straight and bent portions (2b, 2c). A phosphor layer (4) is formed on the inner surface of the bulb (2), and a discharge medium containing mercury is sealed in the bulb (2). The bases (6) are provided at both ends (2d, 2d) of the bulb (2). The thermal degradation of the fluorescent layer (4) formed in the straight portions (2b) is reduced, and the initial luminous flux deterioration is reduced, enabling operation of the fluorescent lamp with high efficiency. With such a constitution, a small fluorescent lamp that can be operated with high efficiency and has an improved light output characteristics and an illuminating apparatus using such a fluorescent lamp can be provided.

(57) 要約: 蛍光ランプ1は、管外径12~20mm、管長800~2500mmの1本の直管状バルブ2aの屈曲部形成予定部を加熱して曲げ加工により複数の屈曲部2cおよび屈曲部2cに隣接する直管部2bを形成し、この直管部2bが屈曲部2cを介して同一平面状に配設され、直管部2bおよび屈曲部2cを介して1本の放電路が形成されるように電極5、5が封装された一対の両端部2d、2dを近接させて形成され、内面に蛍光体層4が形成

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